



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/406,844	09/29/1999	IN TAE HWANG	CIT/K-091	1994
34610 7590 02/09/2004 FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			EXAMINER TRAN, PABLO N	
			ART UNIT 2685	PAPER NUMBER 11

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/406,844

Applicant(s)

HWANG ET AL.

Examiner

Pablo N Tran

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/28/03 have been fully considered but they are not persuasive.

The Applicant stated that "the Provisional Application No. 60/080,548 does not disclose '...attach logical channel types...to a media access control header..' and "...mapping between logical channels and transport channels..' ". In response to the Applicant, the Provisional Application No. 60/080,548 disclosed the limitations as stated above (see fig. 5-6 and 10-11, col.8/ln. 8-col. 9/ln. 3, col. 20/ln. 10-col. 22/ln. 5col. 29/ln. 13-col. 32/ln. 3).

The Applicant stated that "the Provisional Application No. 60/070,407 does not disclose "...mapping between logical channels and transport channels..' ". In response to the Applicant, The Applicant should consider the references as a whole. The Provisional Application No. 60/080,548 disclosed the limitation (see reasoning above).

The Applicant stated that "the Provisional Application No. 60/099,773 does not disclose "...mapping between logical channels and transport channels..' ". In response to the Applicant, The Applicant should consider the references as a whole. The Provisional Application No. 60/080,548 disclosed the limitation (see reasoning above).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2685

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-4, 13-22, 25, 34, 37, and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by *Widegren et al.* (6,374,112).

As per claims 1, 13-14, 41-44, *Widegren et al.* disclosed a method for performing data communication between a mobile station MS (see fig. 1/no. 30) and a network (fig. 1) which have media access control MAC sub layers (fig. 7), respectively, a method for branching data in a mobile communication terminal, comprising the steps of allowing each of said MAC sub layers of said MS and network to attach logical channel type based on traffic characteristics info. and a radio bearers status to a MAC header contained in data to be sent in a data sending mode, to branch said data to be sent to transport channels corresponding to the attached logical channels, to determine logical channels corresponding logical types of a MAC header contained in received data in a data receiving mode to branch said received data to said determined logical channels (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

As per claims 2 and 15, *Widegren et al.* disclosed said MAC sub layers to perform a channel mapping operation in a one-to-one, many-to-one, or one-to-many manner to branch said data to be sent or said received data (see col. 9/ln. 50-63).

As per claims 3-4 and 16-17, *Widegren et al.* disclosed said traffic characteristic info includes traffic characteristic identifiers transferred from a radio source control layer and other upper layer. Such traffic characteristic identifiers represent any one of random access data, synch. data, system data, paging info/forward access grant info, short message service data, no radio bearer short packet data, signaling data, radio bearer short/long packet data, multicast signaling data, or multicast data and speech (see col. 7/ln. 54-col. 8/ln. 13, col. 10/ln. 15-21, col. 10/ln. 64-col. 12/ln. 11).

As per claims 18 and 40, *Widegren et al.* disclosed a method of mapping between logical and transport channels, wherein the logical channels comprise at least one of a dedicated control channel or a dedicated traffic channel and the transport channels comprise at least one of a forward access channel, a random access channel, a downlink shared channel, or a dedicated channel (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

As per claims 19-20, *Widegren et al.* disclosed said mapping is a function of medium access control MAC (fig. 7).

As per claim 21, *Widegren et al.* disclosed the MAC is a sub-layer that performs a branching operation suitable to a service characteristic in order to appropriately process a variety of services (fig. 7, col. 13/ln. 44-60).

As per claim 22, *Widegren et al.* disclosed said mapping is between the dedicated control channel and one of the transport channels (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

As per claim 25, *Widegren et al.* disclosed said mapping is between the dedicated traffic channel and one of the transport channels (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

As per claim 34, *Widegren et al.* disclosed said mapping is between one of logical and downlink shared channels (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

Art Unit: 2685

As per claim 37, *Widegren et al.* disclosed said mapping is between the logic and dedicated channels (fig. 4-6, fig. 9, col. 2/ln. 49-col. 4/ln. 49, col. 9/ln. 5-col. 13/ln. 42, col. 15/ln. 39-col. 16/ln. 41).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Widegren et al.* (6,374,112).

As per claims 5-12, *Widegren et al.* disclose such specific way of channels mapping operation (see fig. 7-9, col. 9/ln. 50-63, col. 13/ln. 43-col. 16/ln. 29) but do not explicitly disclosed other adapted way of channel mapping operations as cited in claims 5-12. However, it is obvious that any other way of channel mapping operations can be used as long as it provide channels mapping operations and multiplexing/demultiplexing between logical and transport channels according to traffic characteristics to branch data. Therefore, it would have been obvious to one of ordinary skill in the art to utilize such channel mapping operations, as stated above, to the channels mapping operations of *Widegren et al.* in order to flexibility providing a wide variety of mobile communications services and efficiently allocating resources to support those services.

Art Unit: 2685

6. Claims 23-24, 26-27, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Widegren et al.* (6,374,112) in view of *Manning et al.* (6,519,266).

As per claims 23, 26, and 35, the modified system of *Widegren et al.* disclosed logical and transport channels but do not explicitly disclose such channel DCCH, DTCH, or DSCH. However, such channel of DCCH, DTCH, or DSCH is well known in the art, as disclosed in *Manning et al.* (col. 3/ln. 50-64, col. 7/ln. 32-56). Therefore, it would have been obvious to of ordinary skill in the art to provide such channel of DCCH, DTCH, or DSCH, as disclosed in *Manning et al.*, to the modified system of *Widegren et al.* to provide an efficient and selectively method of sizing of data blocks for wireless transport of data in a communication system.

As per claim 24, the modified system of *Widegren et al.* disclosed the DCCH is for transferring dedicated signal control information in duplex through a downlink and uplink (see *Widegren et al.*, col.11/ln. 31-41, see *Manning et al.*, col. 3/ln. 24-30).

As per claim 27, the modified system of *Widegren et al.* disclosed the DTCH is for transferring dedicated user long/short packet data in duplex through a downlink and uplink (see *Widegren et al.*, col. 4/ln. 12-32, see *Manning et al.*, fig. 3, col. 6/ln. 16-col. 7/ln. 2).

As per claim 36, the modified system of *Widegren et al.* disclosed the DSCH is for multi-casting user data in simplex through a downlink (see *Widegren et al.*, col.11/ln. 31-41, see *Manning et al.*, col. 6/ln. 35-41).

7. Claims 28-33 and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Widegren et al.* (6,374,112) in view of Wallentin et al. (6,347,091).

As per claims 28 and 31, the modified systems of *Widegren et al.* do not explicitly disclose mapping of logical and forward/random access channels. However, such mapping channels, as stated above, are well known in the art, as disclosed in *Wallentin et al.* (col. 14/ln. 40-col. 13/ln. 33). Therefore, it would have been obvious to of ordinary skill in the art to provide such mapping of channels, as disclosed in *Wallentin et al.*, to the modified system of *Widegren et al.* to provide an efficient and selectively method of sizing of data blocks for wireless transport of data in a communication system.

As per claims 29, 32, and 38, the modified system of *Widegren et al.* disclosed logical and transport channels but do not explicitly disclose such channel FACH, RACH, or DCH. However, such channel of FACH, RACH, or DCH is well known in the art, as disclosed in *Wallentin et al.* (col. 10/ln. 61-67). Therefore, it would have been obvious to of ordinary skill in the art to provide such channel of FACH, RACH, or DCH, as disclosed in *Wallentin et al.*, to the modified system of *Widegren et al.* to provide an efficient and selectively method of sizing of data blocks for wireless transport of data in a communication system.

As per claim 30, the modified system of *Widegren et al.* disclosed the FACH is for transferring forward access grant information and short packet data in simplex through a downlink (see *Wallentin et al.*, col. 10/ln. 48- col. 11/ln. 19).

As per claim 33, the modified system of *Widegren et al.* disclosed the RACH is for transferring random access grant information and short packet data in simplex through a downlink (see *Wallentin et al.*, col. 10/ln. 48- col. 11/ln. 19).

Art Unit: 2685

As per claim 39, the modified system of *Widegren et al.* disclosed the DCH is for transferring dedicated signal information and dedicated user data in duplex through a downlink and uplink (see *Wallentin et al.*, col. 10/ln. 48- col. 11/ln. 19).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cao et al. (6,292,471), Soininen et al. (6,434,130), Terry (2001/0043576), Chen et al. (2002/0090940), Muller (6,438,375), Lee et al. (6,490,453), Lee et al. (6,456,604), Kim et al. (6,438,119), and Beming et al. (6,236,646) disclose radiotelephone communication system.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (703)308-7941. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)305-4385.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)


Art Unit: 2685

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

PABLO N. TRAN
PRIMARY EXAMINER

February 6, 2004


802655